

FIG. 1

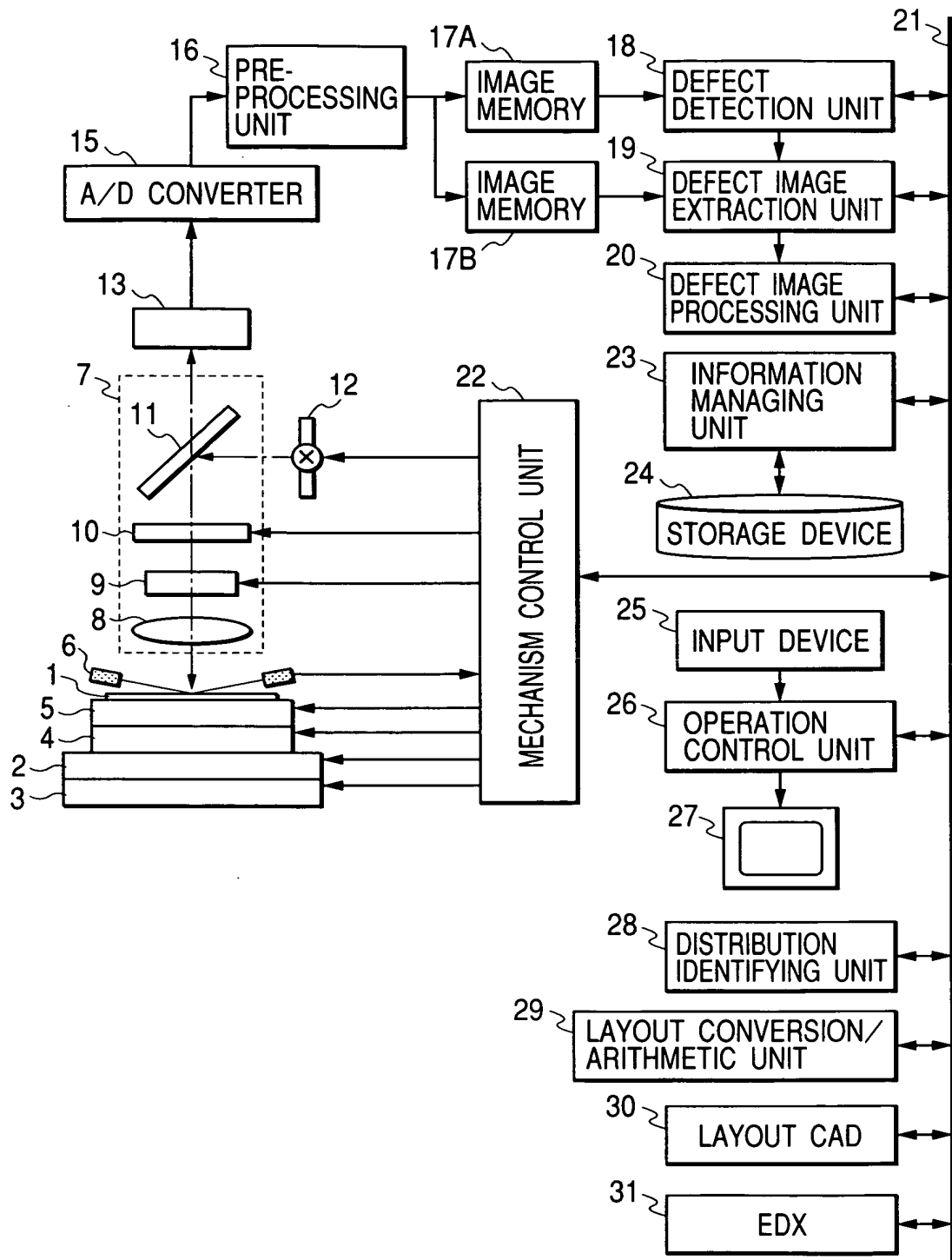


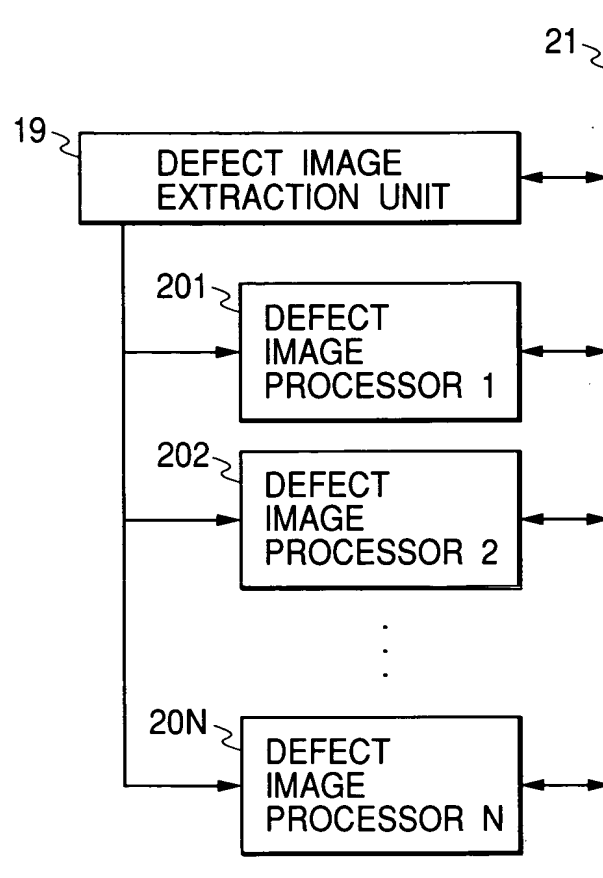
FIG. 2

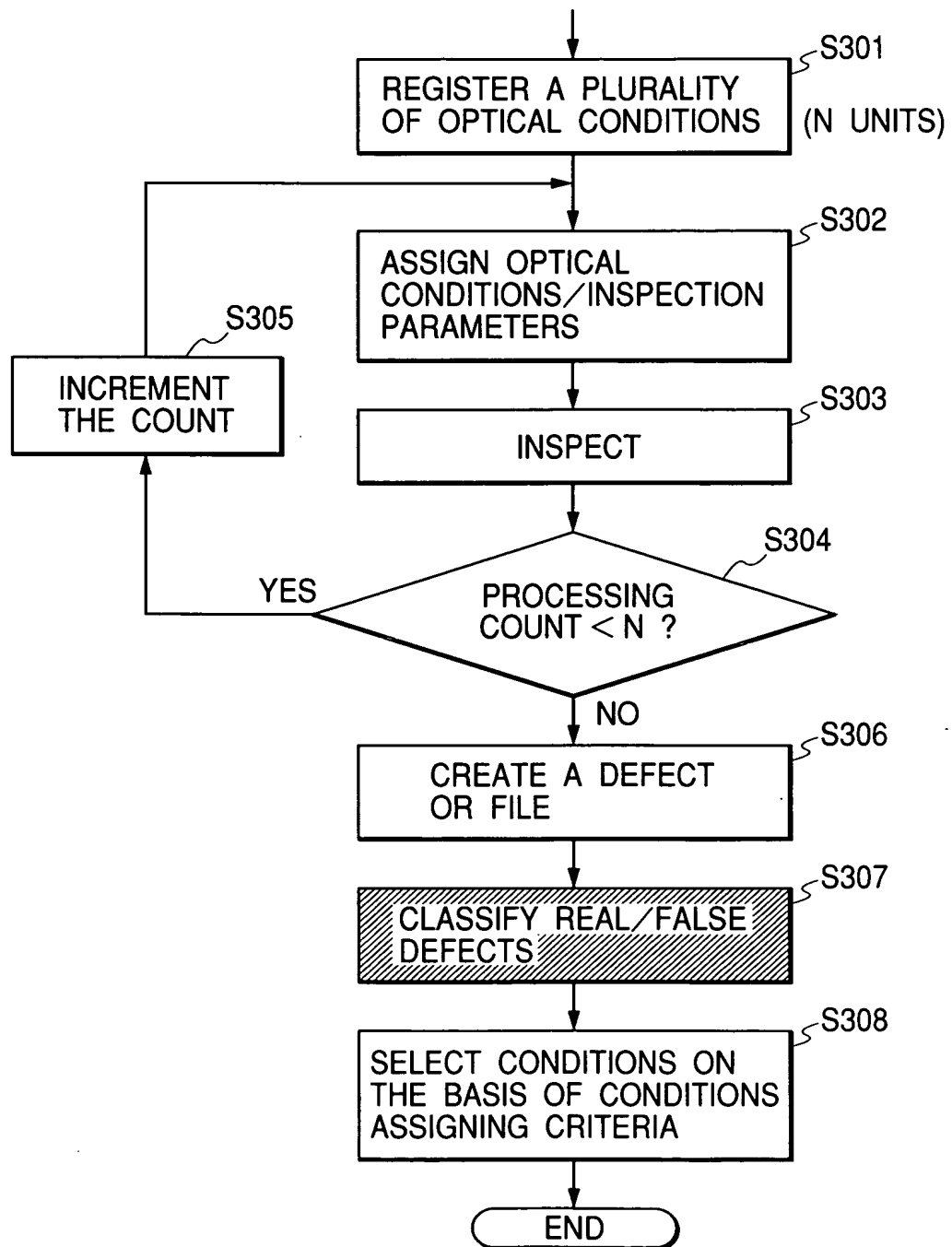
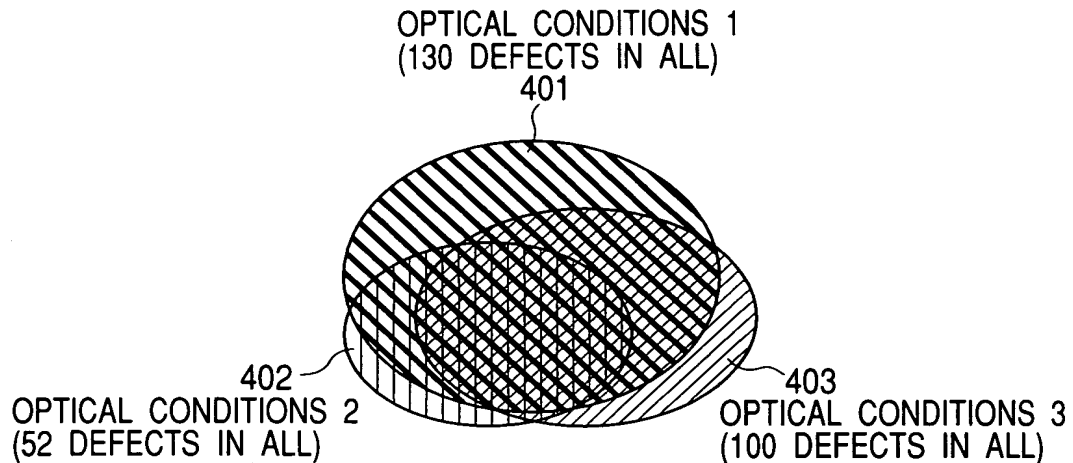
FIG. 3

FIG. 4A

EXAMPLE SHOWING THE RELATIONSHIP OF DEFECT OR FILE

**FIG. 4B**

EXAMPLE SHOWING A BREAKDOWN OF DEFECTS FOR EACH SET OF CONDITIONS

OPTICAL CONDITIONS	REAL DEFECTS (α)	MISSES (β)	FALSE DEFECTS (γ)	ERRORS ($\beta + \gamma$)
1	100	20	30	50
2	50	70	2	72
3	90	30	10	40
TOTAL (OR)	120	-	-	-

404

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FIG. 4C

EXAMPLE SHOWING A CRITERIA ASSIGNMENT WINDOW FOR SELECTION OF CONDITIONS


412

ASSIGNING CRITERIA









411

☒ MAXIMUM SENSITIVITY: MAXIMUM NUMBER OF REAL DEFECTS DETECTED
☐ MINIMUM FALSE DEFECT COUNT: MINIMUM NUMBER OF FALSE DEFECTS DETECTED
☐ MINIMUM ERROR COUNT: MINIMUM NUMBER OF FALSE DEFECTS DETECTED + MISSES

FIG. 5

OPTICAL CONDITIONS
ASSIGNMENT NO.  501

OPTICAL CONDITION NO.3

CAMERA	TDI 	502
PIXEL SIZE	0.25000 	503
WAVELENGTH FILTER	3 	504
SPATIAL FILTER	5 	505
ND FILTER	50% 	506
APERTURE STOP	2 	507
LIGHT SOURCE	Halogen 	508
FOCUS OFFSET QUANTITY	-0.3 	509

510 511

FIG. 6

601

OPTICAL CONDITIONS SELECTION RESULT

OPTICAL CONDITIONS NO.	3
CAMERA	TDI
PIXEL SIZE	0.25000
WAVELENGTH FILTER	3
SPATIAL FILTER	5
ND FILTER	50%
APERTURE STOP	2
LIGHT SOURCE	Halogen
FOCUS OFFSET QUANTITY	-0.3

602 OK 603 CANCEL 604 STANDARD 605 RESET

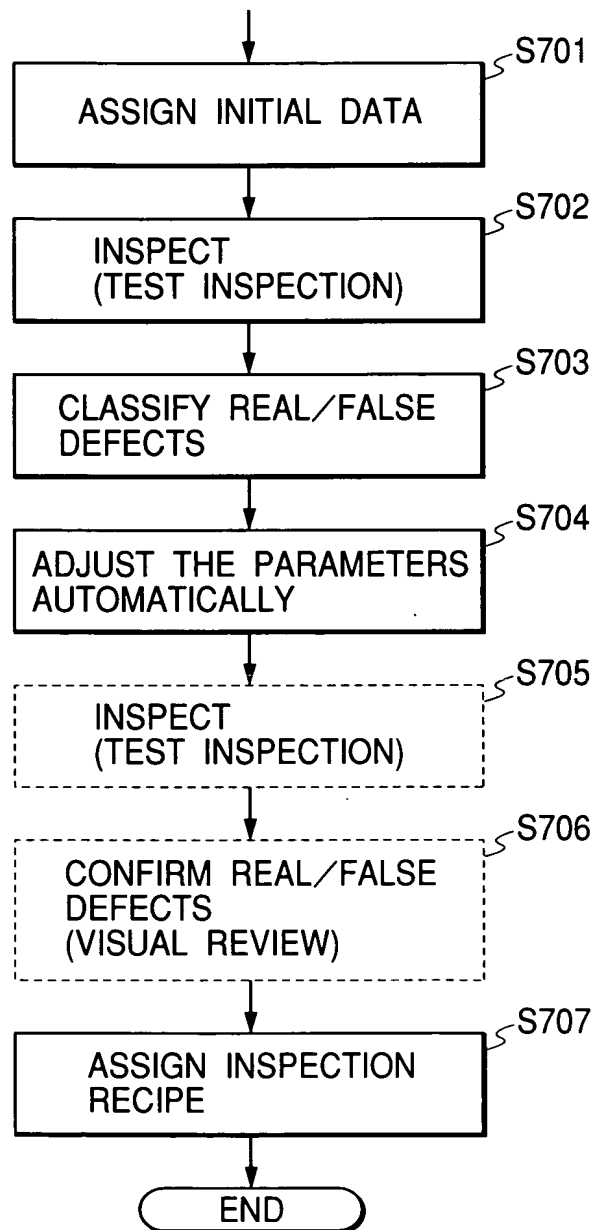
FIG. 7

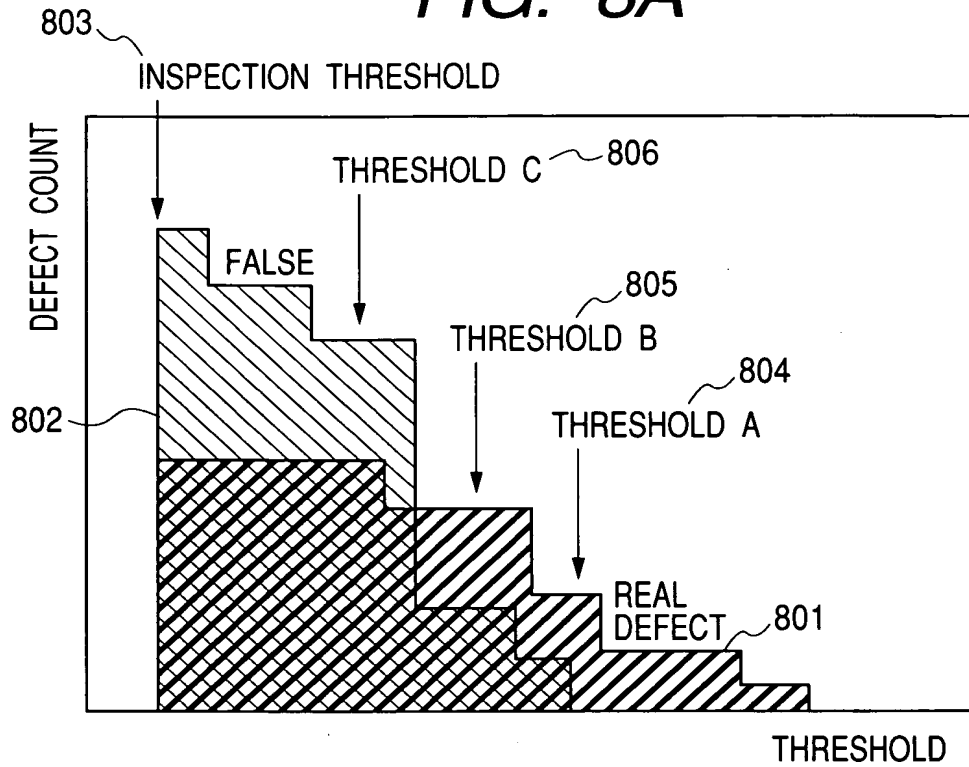
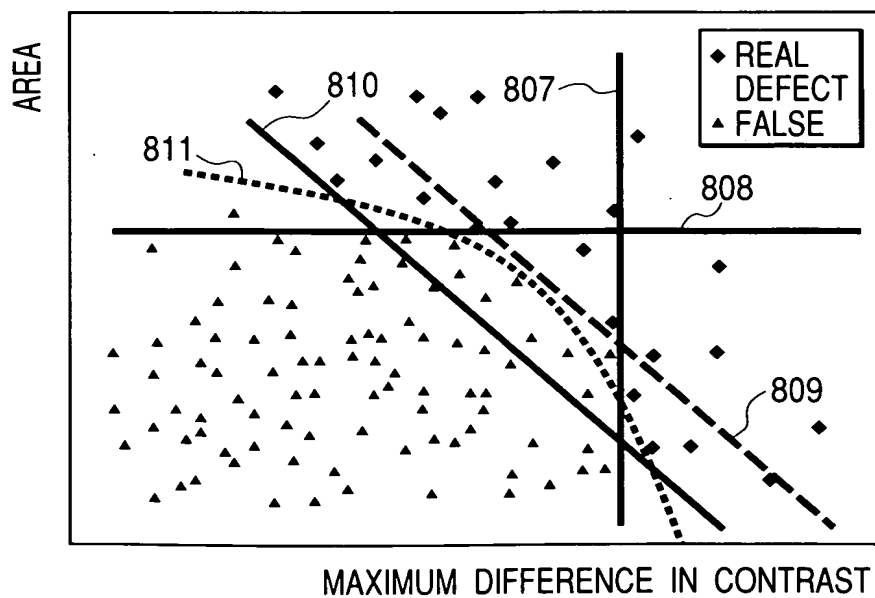
FIG. 8A**FIG. 8B**

FIG. 9

901

INSPECTION CONDITION ASSIGNING RESULT

CONTRAST THRESHOLD	33 906
AREA THRESHOLD	3

902 OK 903 CANCEL 904 STANDARD 905 RESET

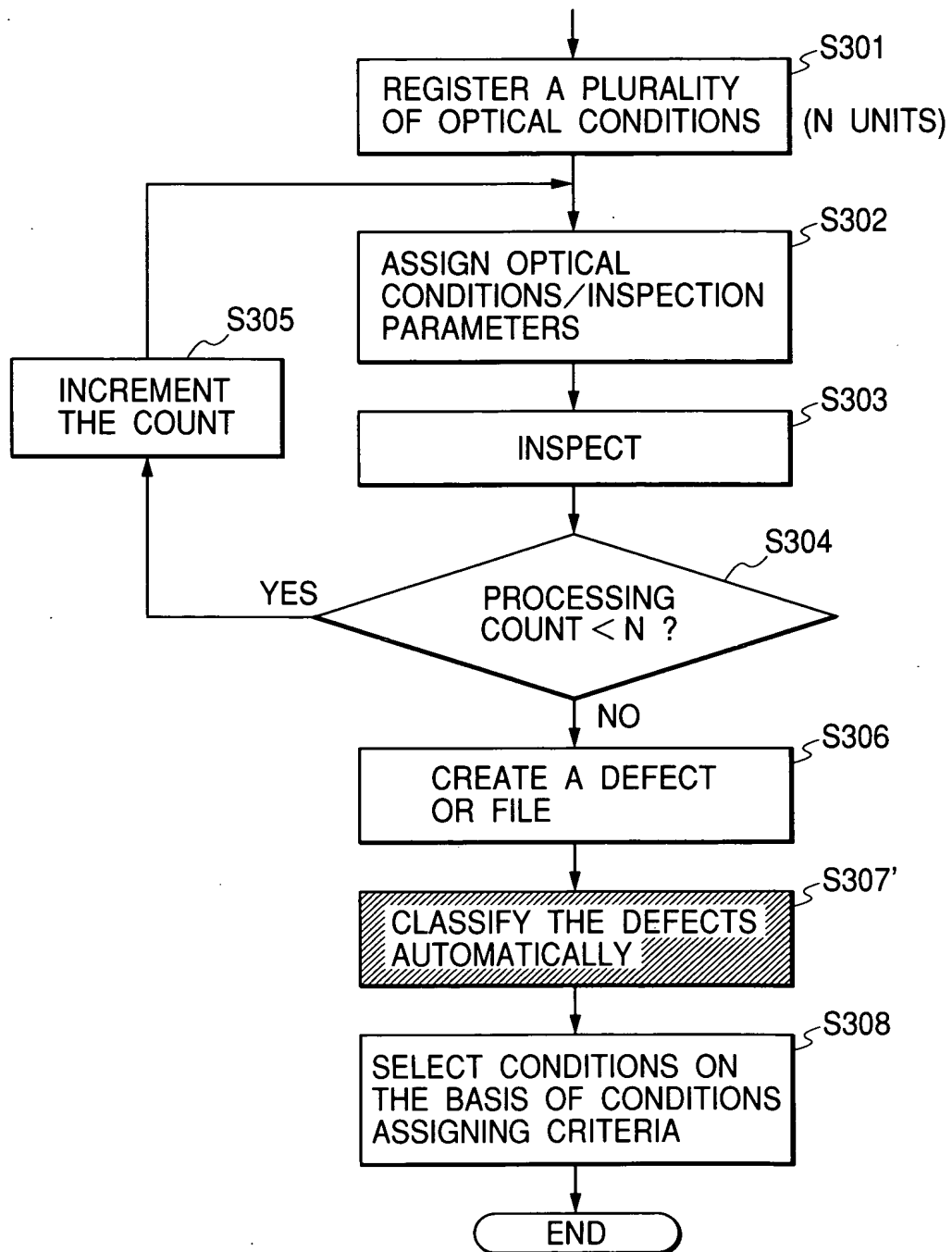
FIG. 10

FIG. 11

OPTICAL CONDITIONS	DEFECT 1 ON	DEFECT 2 ON	DEFECT 3 ON	UNCLEAR OFF	FALSE OFF	ON TOTAL	OFF TOTAL
1	10	60	10	10	20	80	30
2	30	40	20	40	30	90	70
3	20	30	10	5	5	60	10
4	15	15	15	15	15	45	30
5	20	30	20	2	1	70	3

FIG. 12

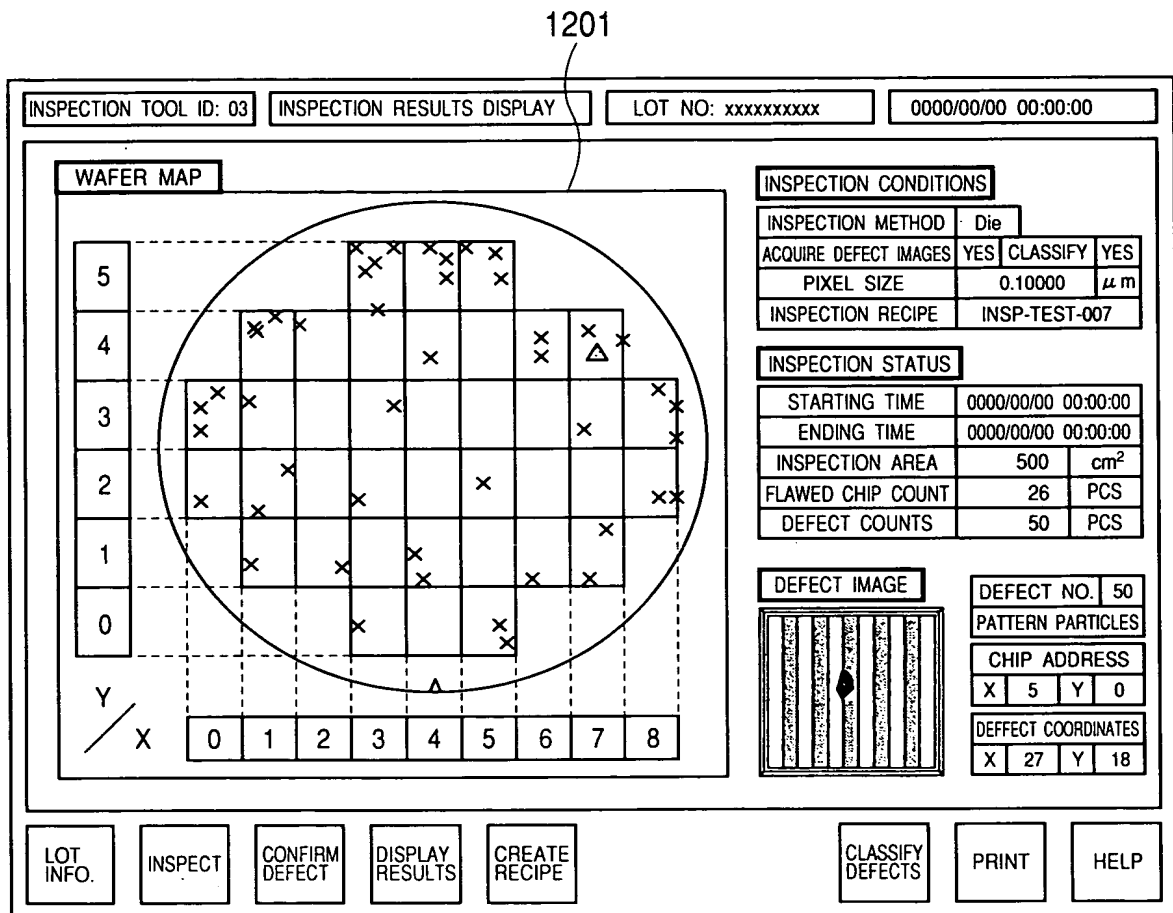


FIG. 13

CATEGORY	NAME	RESULT DISPLAY ON/OFF
1	PARTICLE	ON
2	SHORT	ON
3	SCRATCH	ON
4	GRAIN	OFF
5	COLOR VARIATIONS	OFF
6	OTHERS	OFF
7	UNCLEAR	OFF

FIG. 14

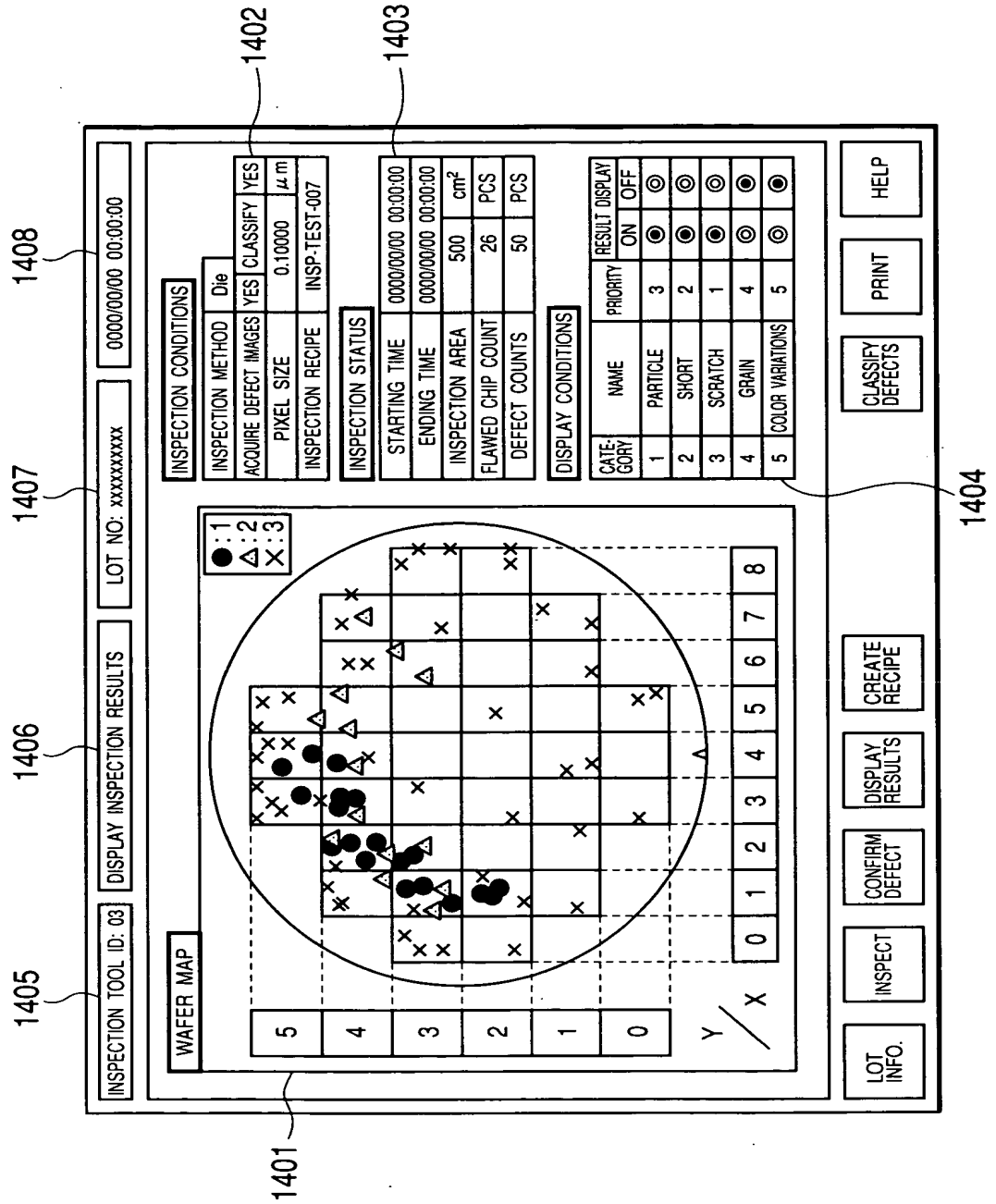


FIG. 15

1511 INSPECTION TOOL ID: 03

1512 DEFECT CLASSIFICATION RESULTS

1513 LOT NO: xxxxxxxx

1514 0000/00/00 00:00:00

1510 TOTAL DEFECT COUNT 50

1504 CATEGORY 1 PARTICLES

1507 DEFECT COUNTS 13

1505 CATEGORY 2 ISOLATED DEFECT

1508 DEFECT COUNTS 3

1506 CATEGORY 3 PATTERN SHORT

1509 DEFECT COUNTS 6

1501

1502

1503

LOT INFO.

INSPECT

CONFIRM DEFECT

DISPLAY RESULTS

CREATE RECIPE

CLASSIFY DEFECTS

PRINT

HELP

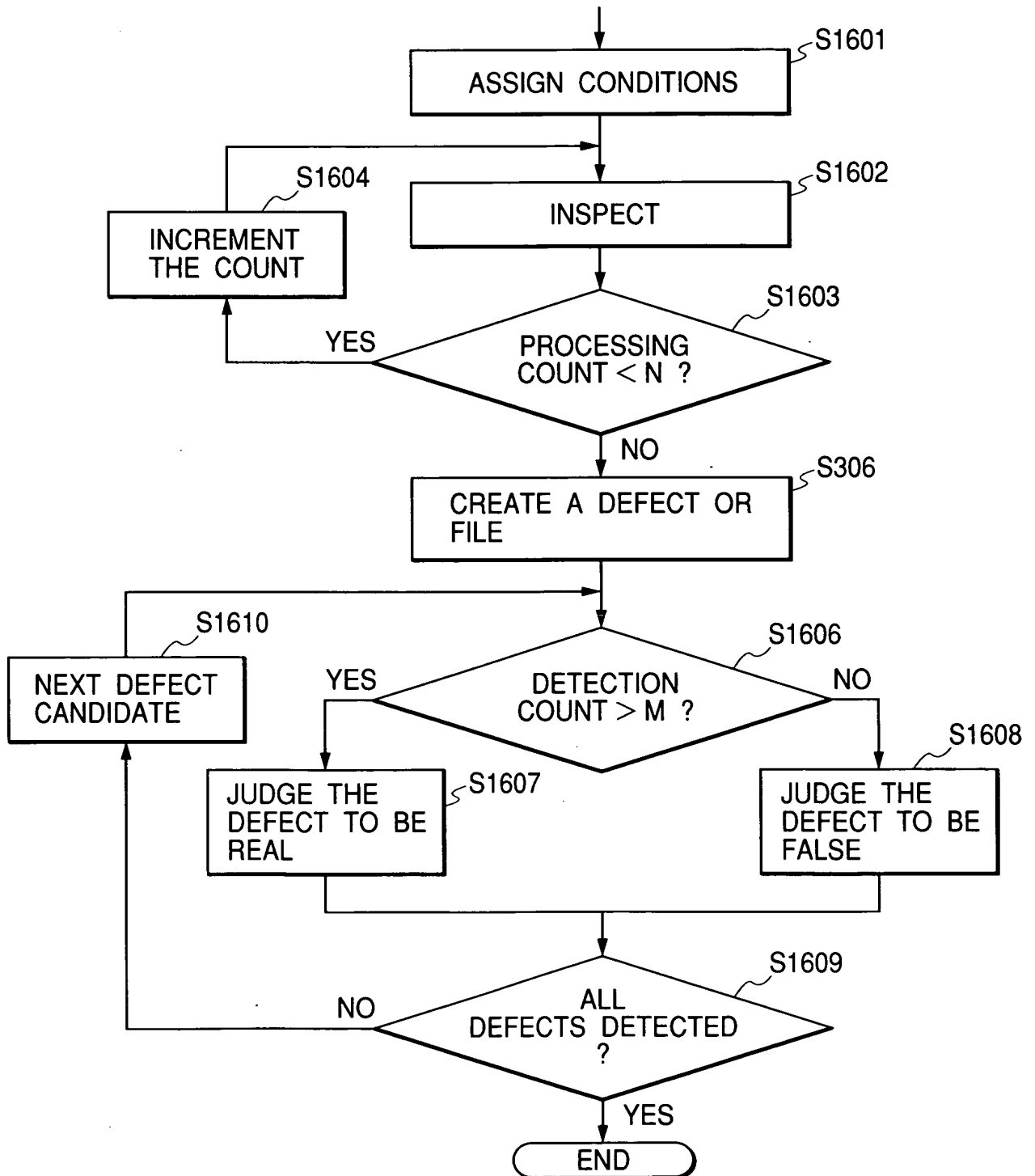
FIG. 16

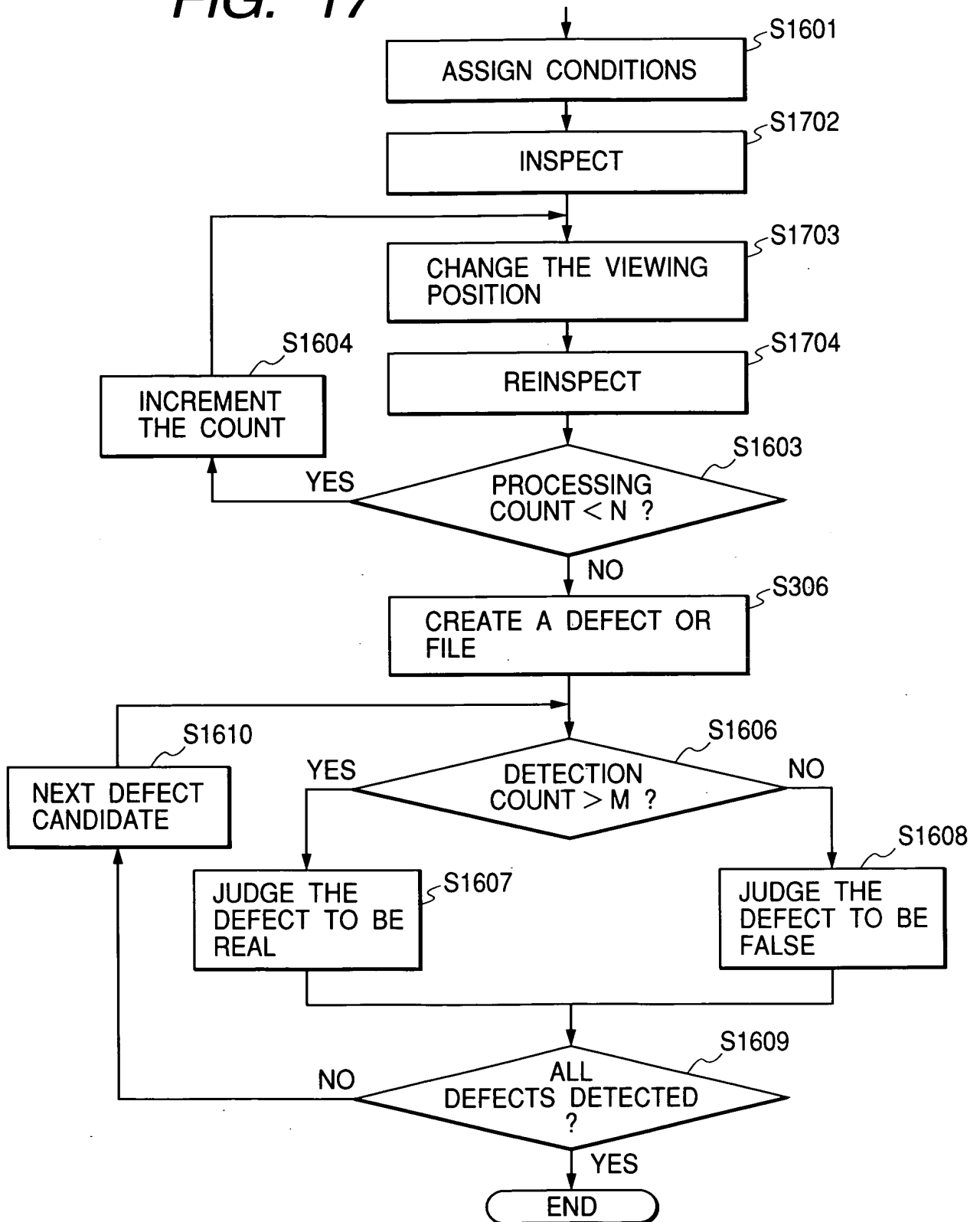
FIG. 17

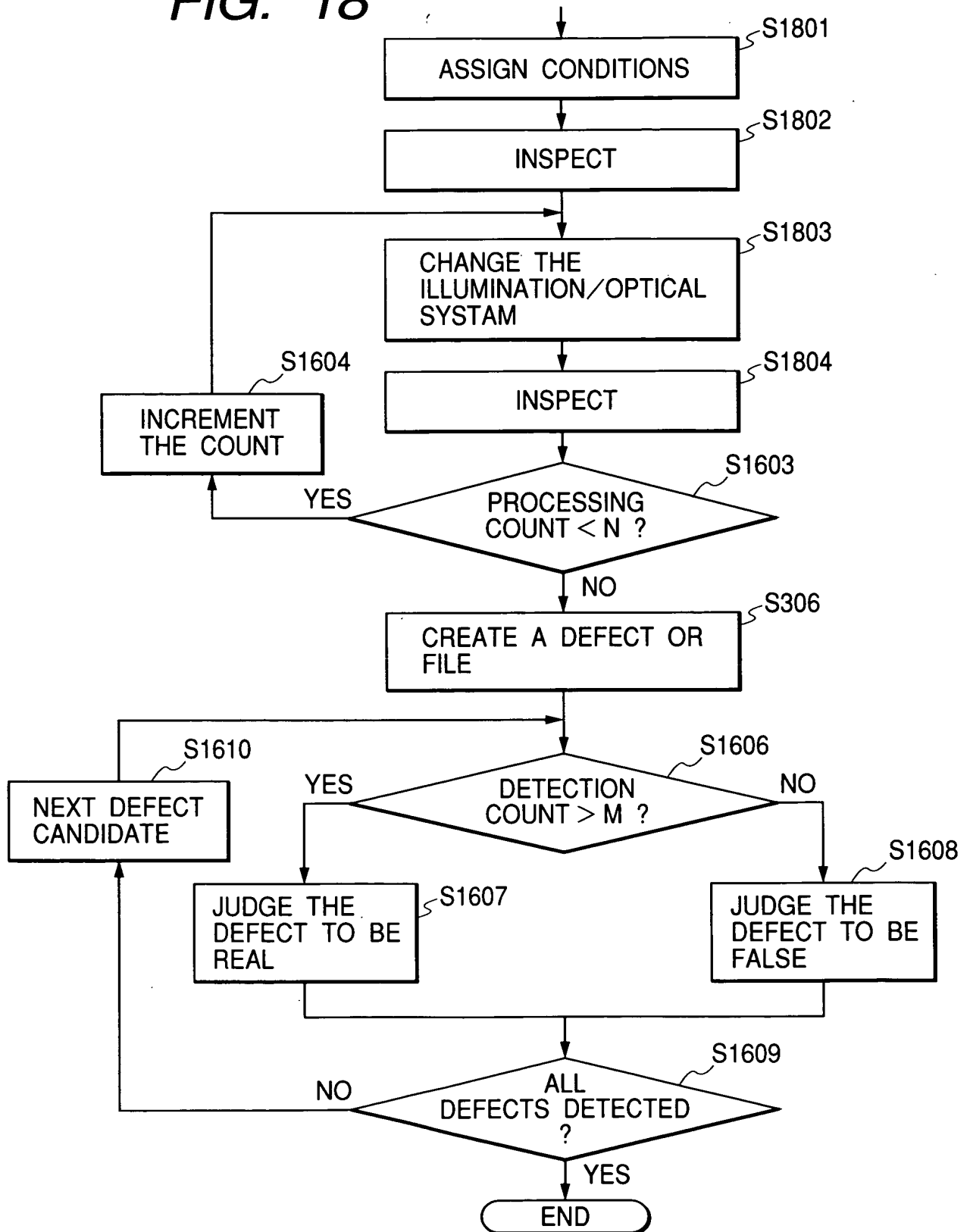
FIG. 18

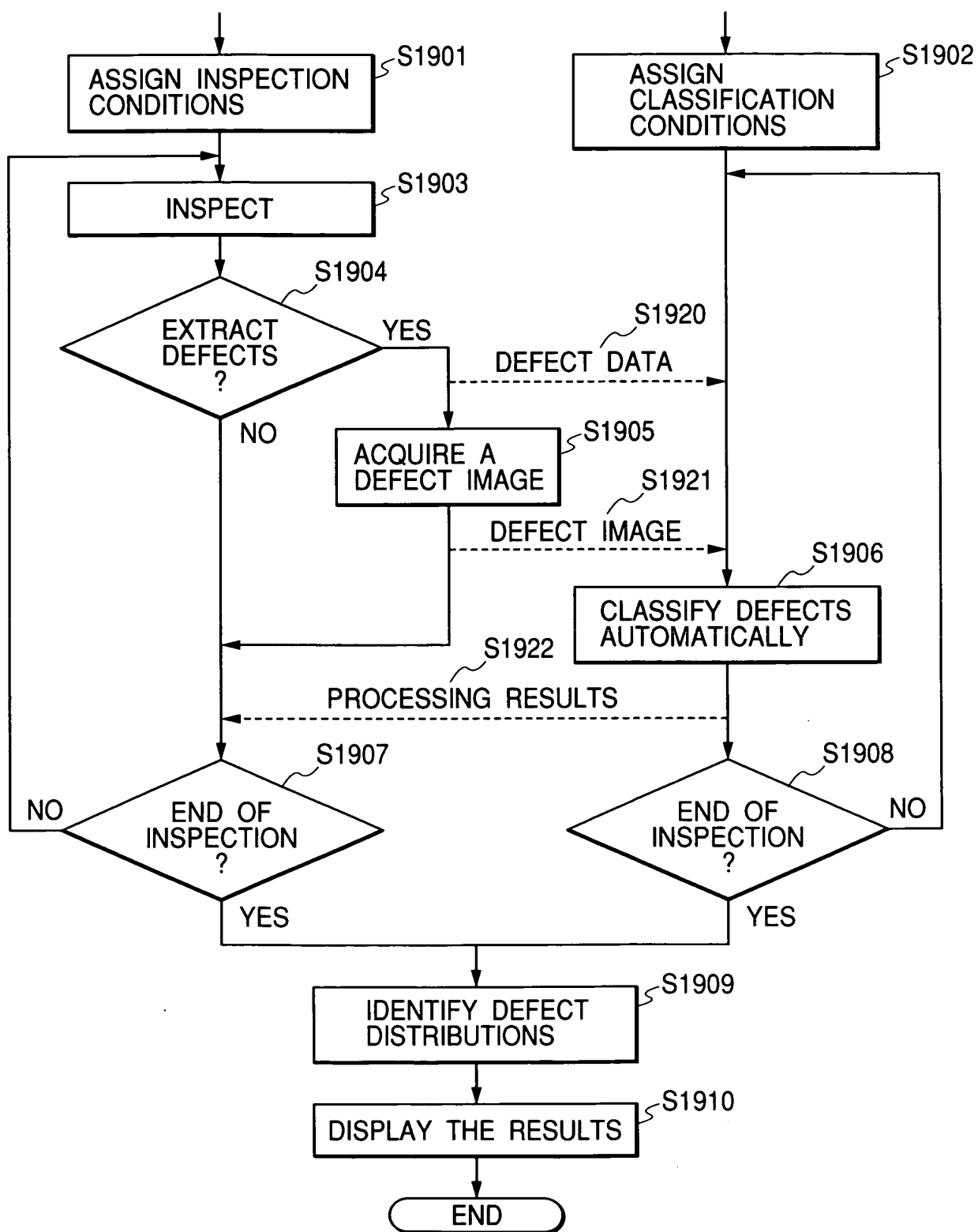
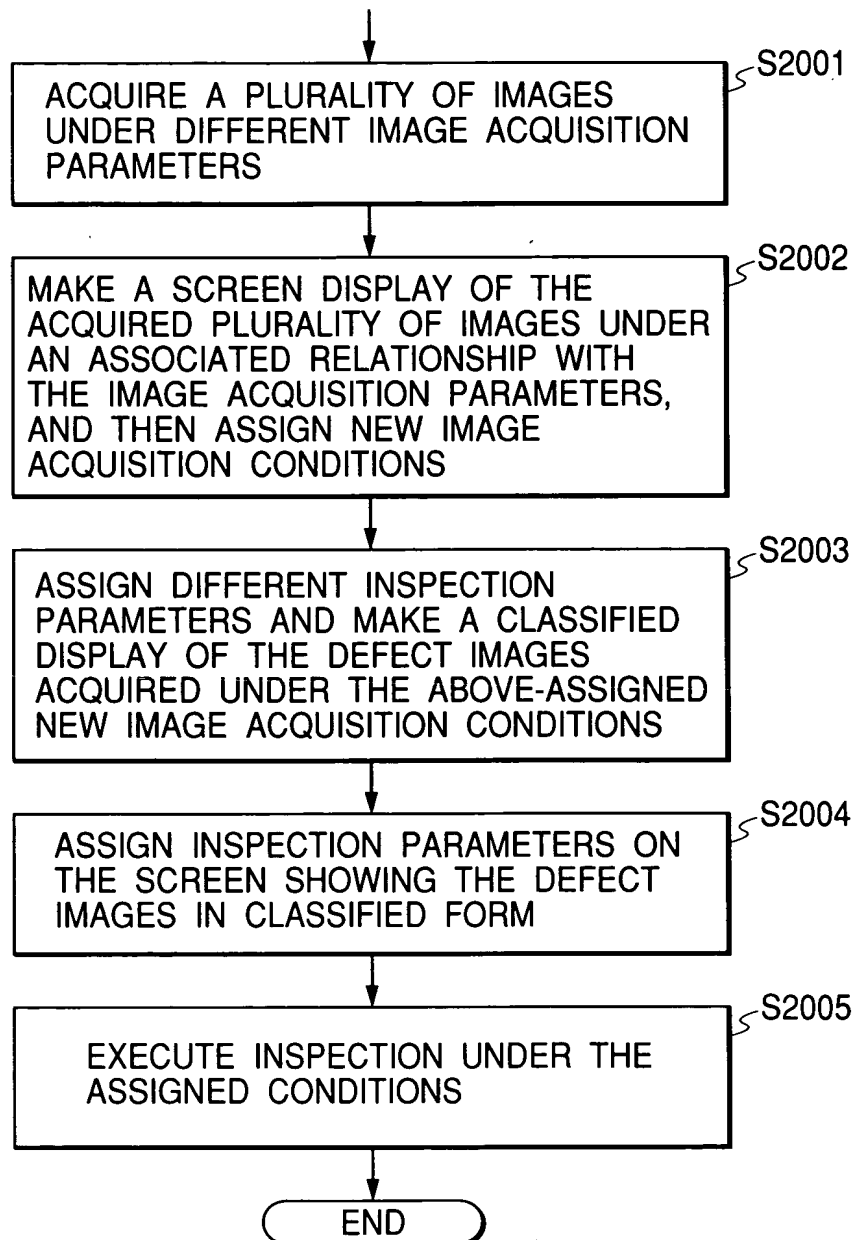
FIG. 19

FIG. 20

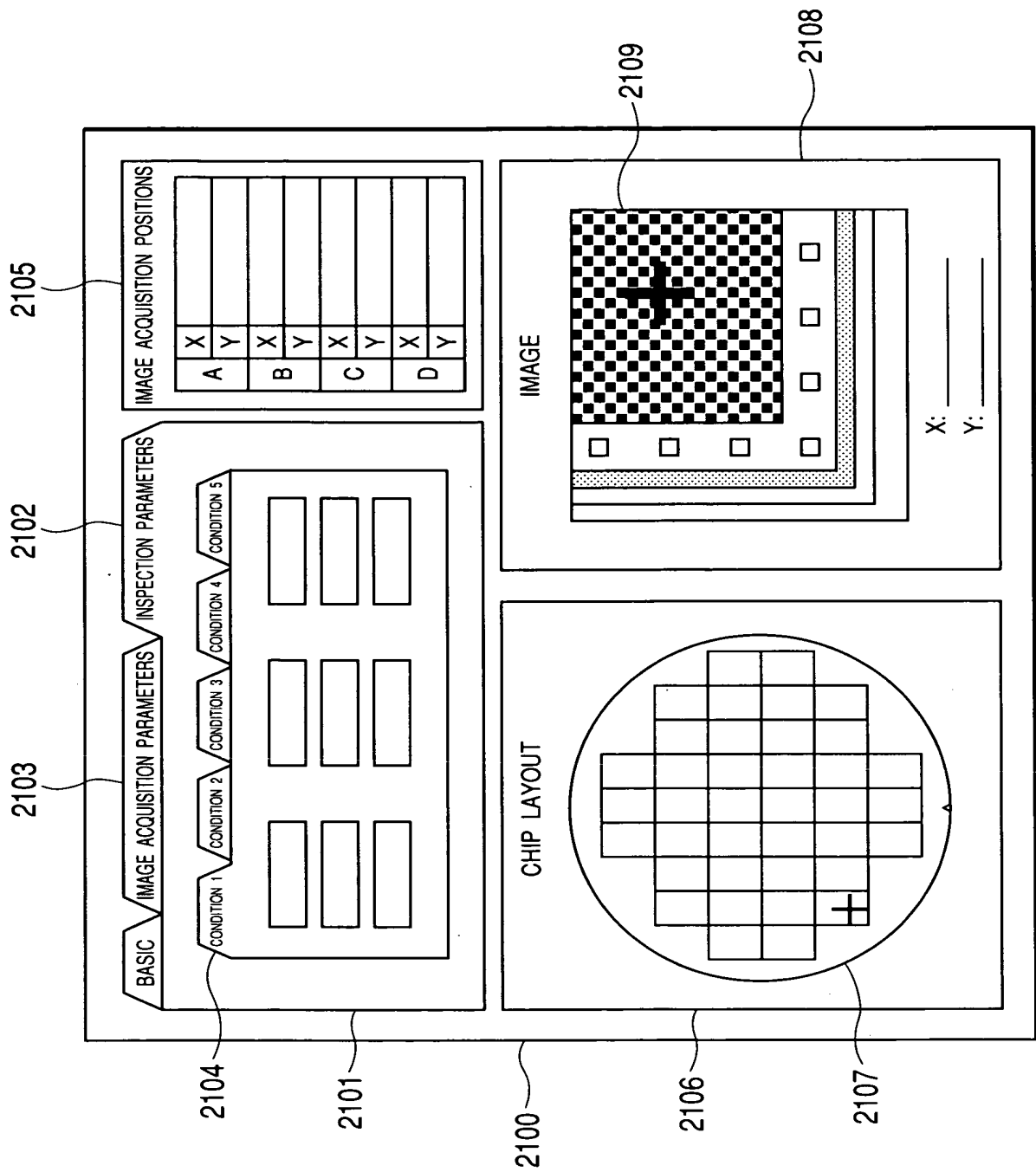


FIG. 21

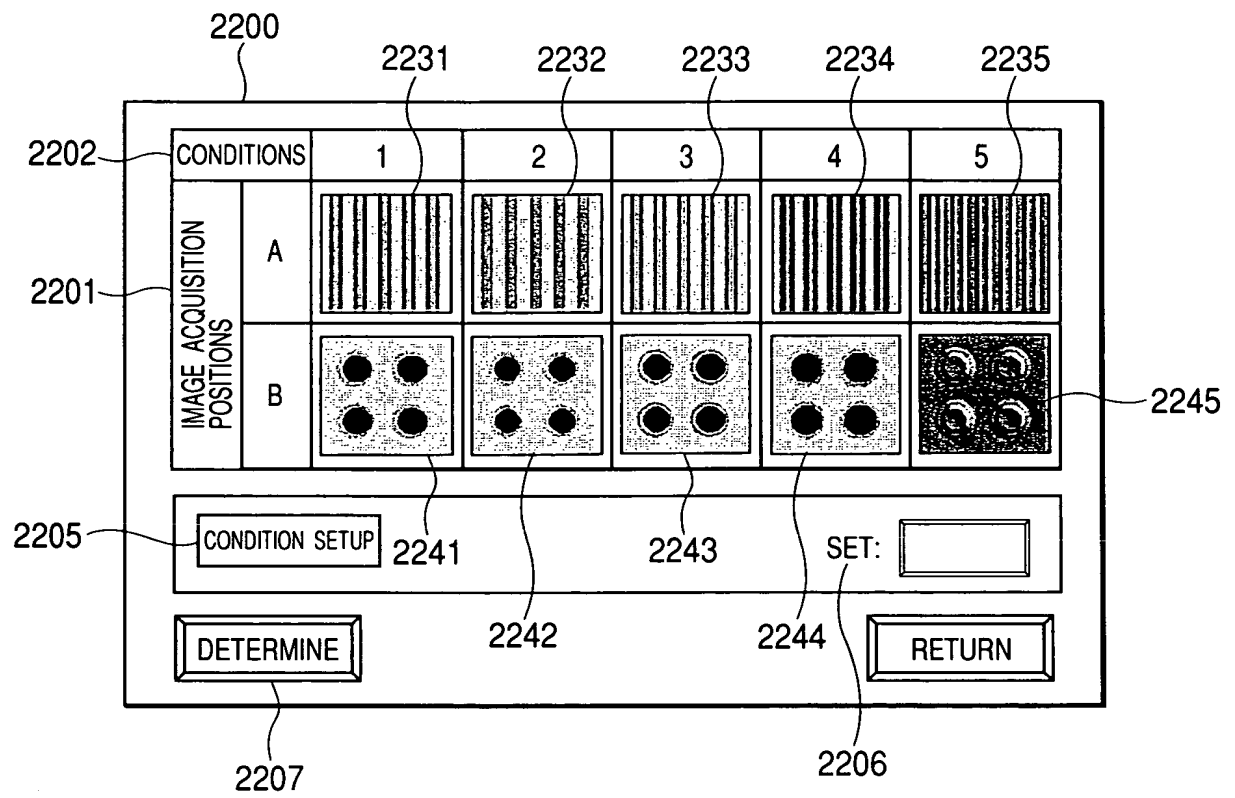
FIG. 22

FIG. 23

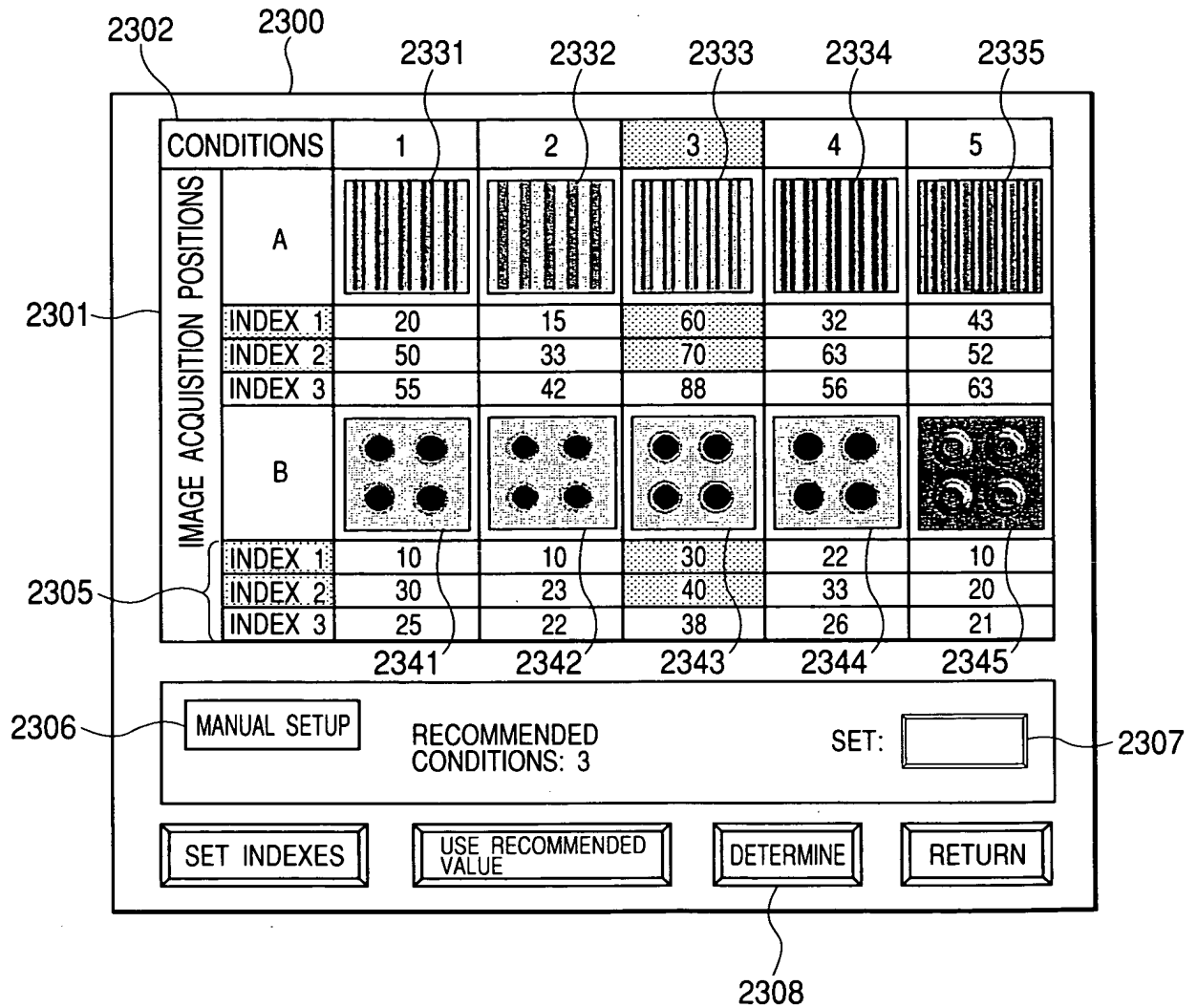


FIG. 24

2411 2404 2405

IMAGE EVALUATION INDEXES

AUTO SETUP SELECTION CONDITIONS

2401	INDEX 1	CONTRAST	▼	2412	2413	MAXIMUM	▼
2402	INDEX 2	DIFFERENTIAL VALUE	▼	2422	2423	MINIMUM	▼
2403	INDEX 3	STANDARD DEVIATION	▼	2432	2433		▼

2406 2431 2421

APPLY RETURN

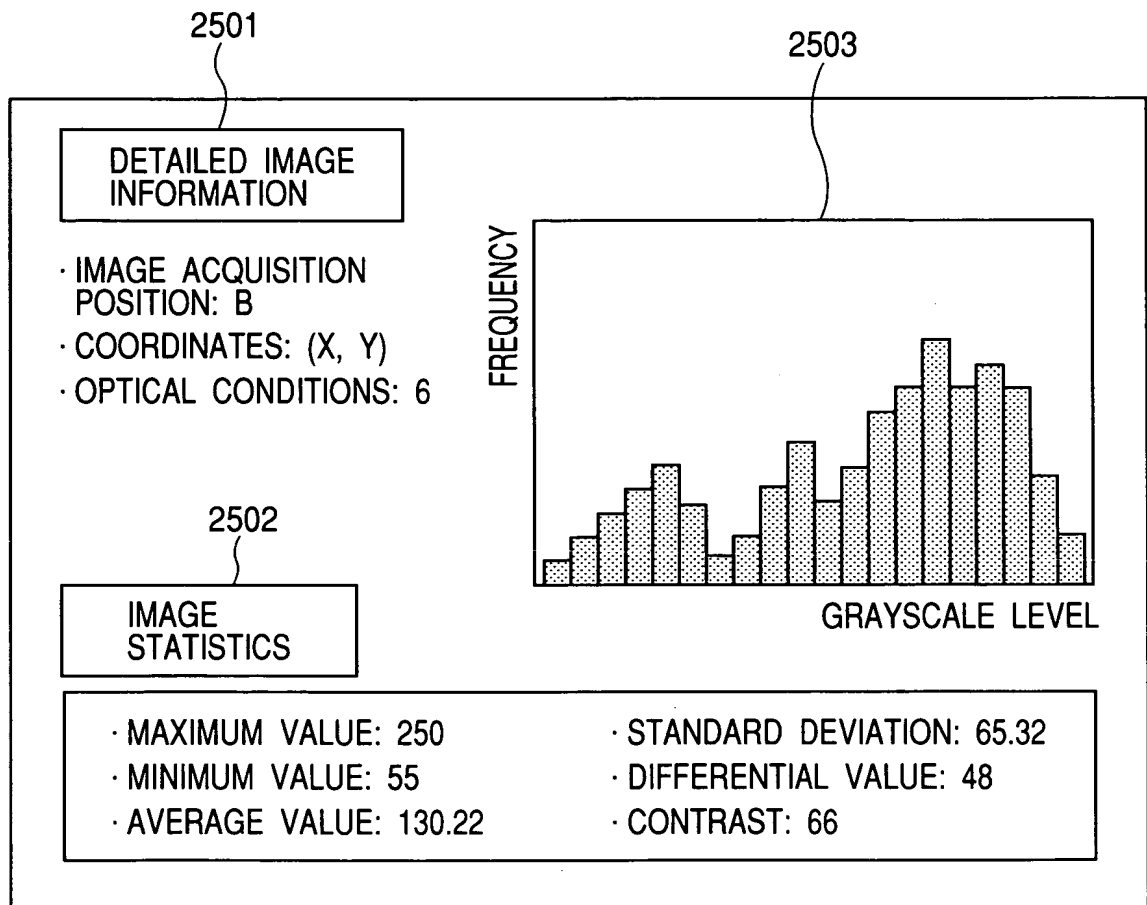
FIG. 25

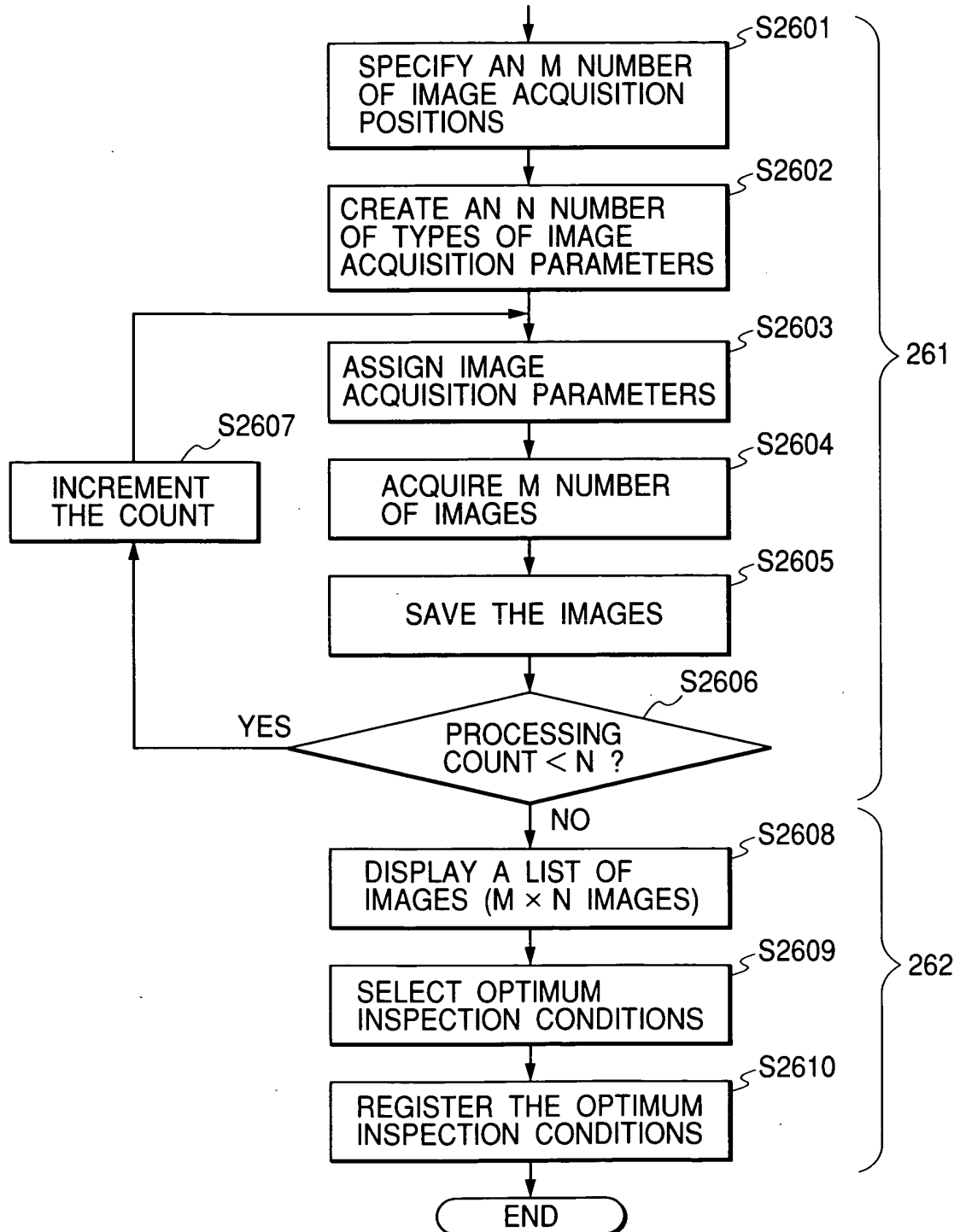
FIG. 26

FIG. 27

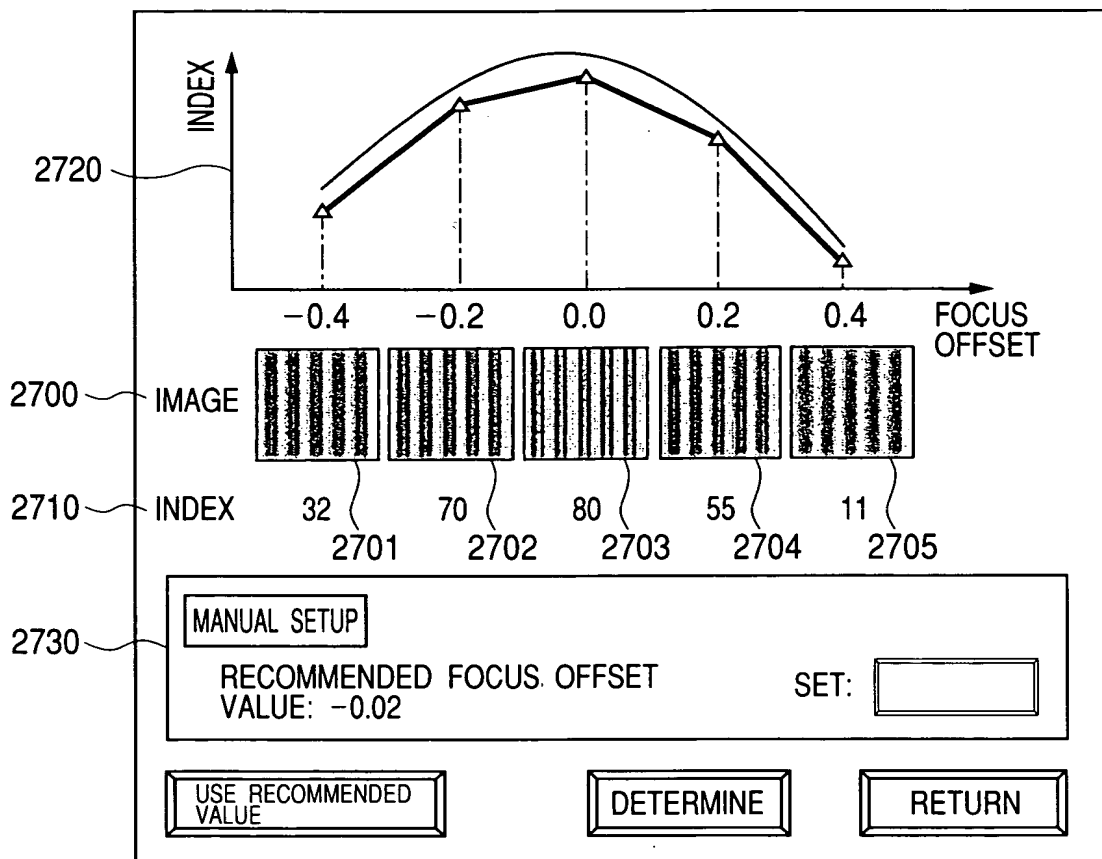


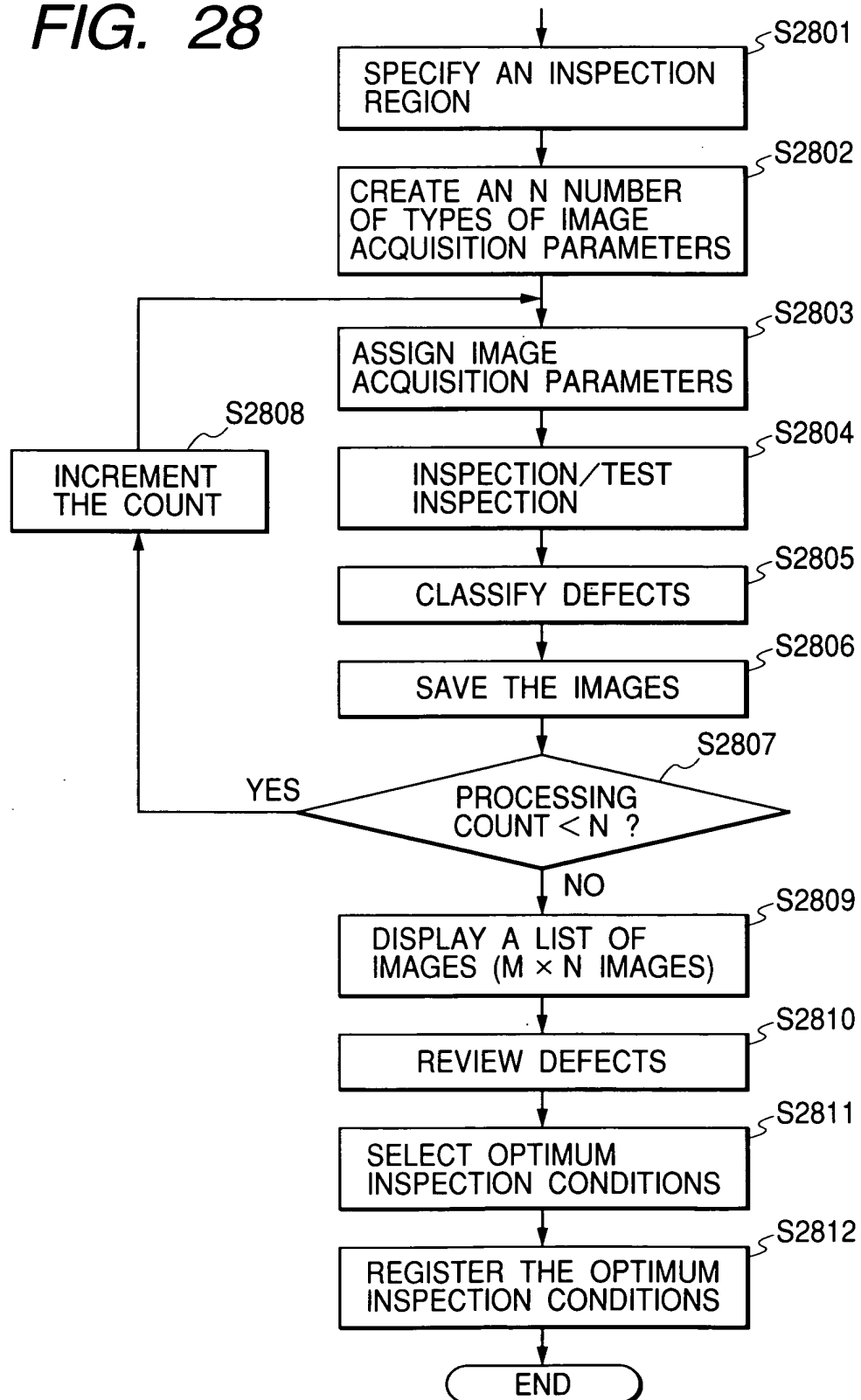
FIG. 28

FIG. 29

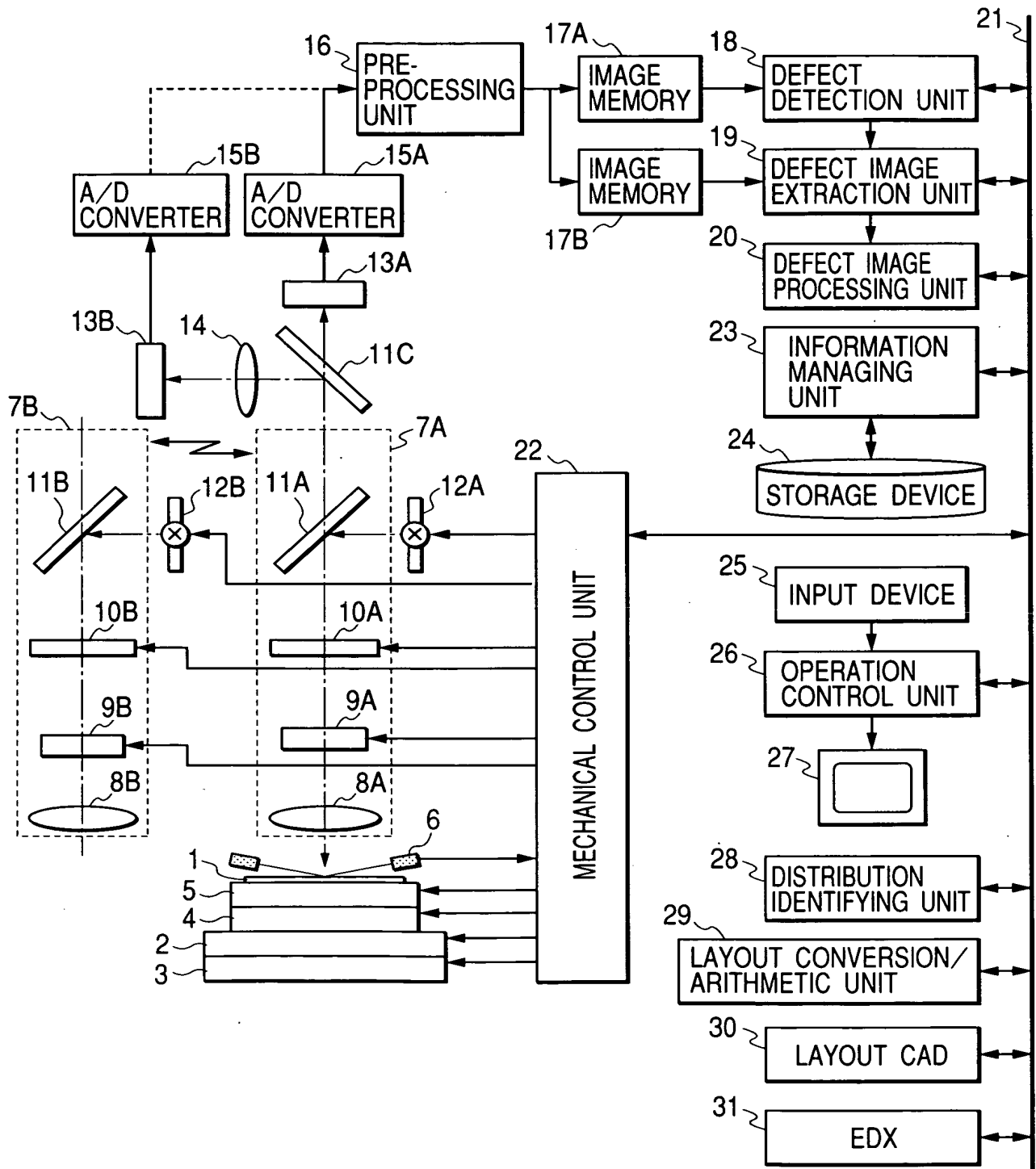


FIG. 30

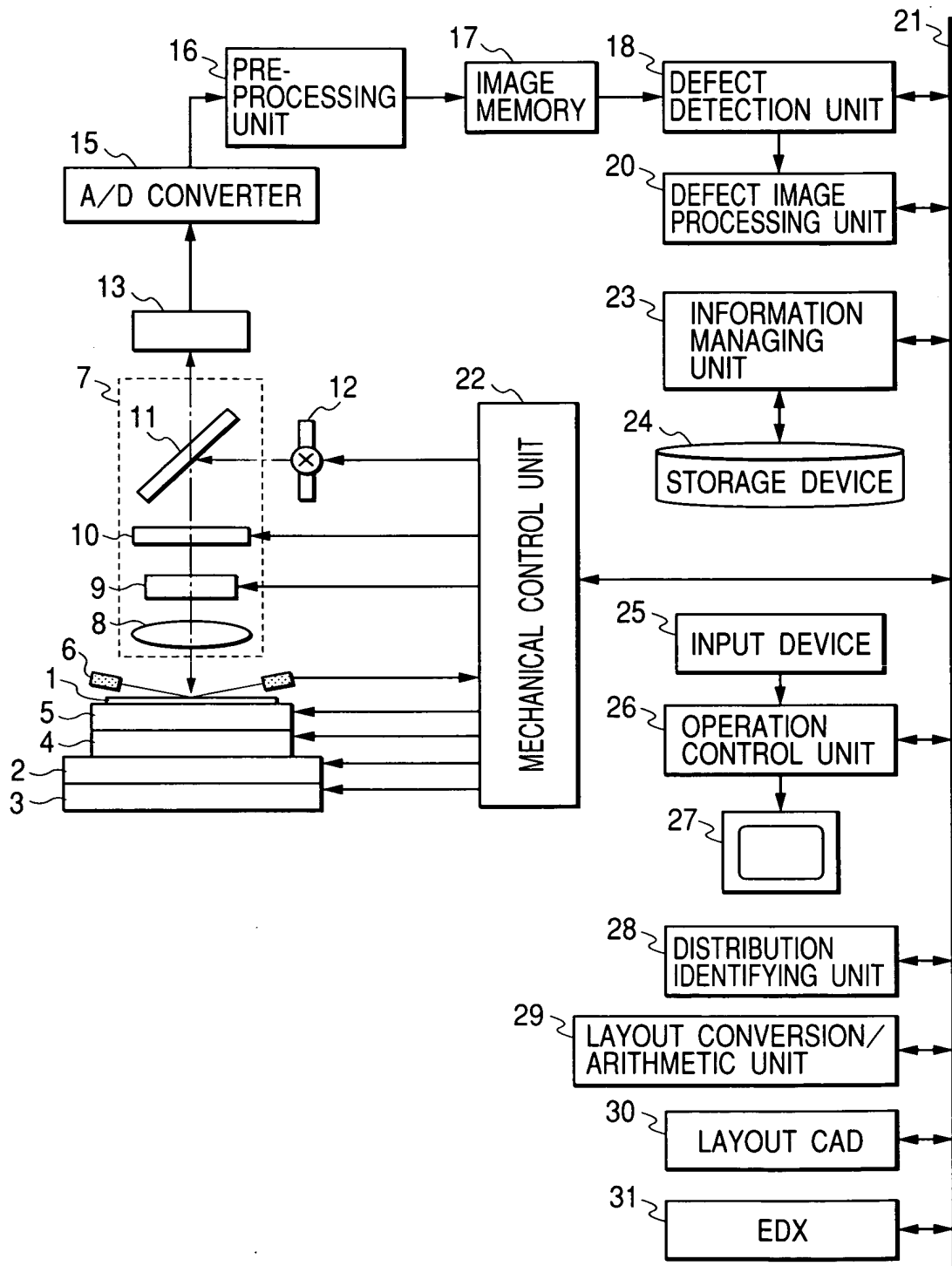


FIG. 31